

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

Claim 1 (Withdrawn): A method of centering a log comprising the steps of rotating a log about a preliminary axis, measuring the contour of the log at intervals of desired rotation angles, and calculating, based on the measured contour data, a optimum yield axis suitable for the peeling of the log and a maximum radius of rotation of the log that corresponds to said optimum yield axis, wherein:

the contour of the log that is used for calculating the optimum yield axis and the contour of the log that is used for calculating the maximum radius of rotation are measured separately, wherein the contour for calculating the optimum yield axis is obtained in a fixed-point manner by measuring the log at a plurality of desired measurement points disposed at appropriate intervals along the axis of the log, whereas the contour for calculating the maximum radius of rotation is obtained in a comprehensive manner by measuring the log in a plurality of desired measurement sections allocated along the axis of the log virtually without any gaps therebetween.

Claim 2 (Withdrawn): The method of centering a log according to claim 1, wherein the contour for calculating the optimum yield axis of the log is measured at at least two measurement points near each end portion of the log.

Claim 3 (Withdrawn): The method of centering a log according to claim 2, wherein the contour for calculating the optimum yield axis is measured additionally at one measurement point near a center portion of the log.

Claim 4 (Currently Amended): ~~An~~ A log centering apparatus for centering a log,
comprising:

a pair of preliminary rotating axles mounted on a frame of said log centering apparatus
and disposed on either end face of a log ~~that is supplied to a predetermined preliminary axis~~
~~location,~~ said preliminary rotating axles ~~being adapted such that they can be brought~~ move
horizontally closer to and away from each other by the operation of an actuator mechanism, with
and at least one of the axles ~~being~~ is rotated by operation of a drive source;

a rotation angle detector mounted in the drive source, wherein the rotation angle
detector detects ~~for detecting~~ the angle of rotation of the rotating axles;

a plurality of beam reflection scanners mounted on a support frame of said log centering
apparatus and disposed at a plurality of ~~desired~~ positions along the horizontal axis of the log at
~~appropriate intervals and near the periphery of the log that is supplied to the preliminary axis~~
~~location, such that, wherein~~ the detection direction of the beam reflection scanners are oriented
toward the axis of the preliminary axles;

a plurality of contact-swinging detection members mounted on the support frame of said
log centering apparatus and disposed ~~[[in]]~~ at a plurality of ~~desired sections~~ positions along the
horizontal axis of the log, each contact-swinging detection member comprising a base portion

pivottally supported by a support axle positioned near the periphery of the log supplied to the preliminary axis location, and a tip portion to which a detection element is attached such that the detection elements are arranged along the axis of the log virtually without any gaps therebetween and are adapted to be in contact with the periphery of the log;

a plurality of swing angle detectors mounted on the support frame of said log centering apparatus, wherein the swing angle detectors ~~for~~ individually ~~detecting~~ detect the amount of swinging of each detection member; and

a centering computation mechanism for calculating optimum yield axis suitable for the peeling of the log based on a detection signal supplied from the rotation angle detectors and contour data supplied from the beam reflection scanners, and for calculating a maximum radius of rotation of the log that corresponds to the optimum yield axis based on contour data supplied from the swing angle detectors in addition to the detection signal from the rotation angle detector and the contour data from the beam reflection scanners.

Claim 5 (Currently Amended): The log centering apparatus ~~for centering a log~~ according to claim 4, wherein the beam reflection scanners are disposed at at least two positions near either end portion of the log.

Claim 6 (Currently Amended): The log centering apparatus ~~for centering a log~~ according to claim 5, wherein the beam reflection scanner is additionally disposed at one position near a center portion of the log.

Claim 7 (Currently Amended): The log centering apparatus ~~for centering a log~~ according to claim 4, 5 or 6, wherein the contact swinging detection members comprise a planar detection element.

Claim 8 (Currently Amended): The log centering apparatus ~~for centering a log~~ according to claim 4, 5 or 6, wherein the contact swinging detection members comprise a cylindrical detection element.